

Module 1

Roofing Fall Protection

This training will cover the following:

- Injuries from roof falls
- When fall protection is required
- Types of fall protection
- Fall restraint equipment

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Roofing Fall Hazards

Falls From Roofs - what are the risks?

2 or 3 deaths and 130 serious injuries occur each year in Washington from falls from roofs.

It is easy to forget where the roof edge is when you are concentrating on your work.

It is nearly impossible to stop or catch yourself if you fall.

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Roofing Fall Hazards

Can you catch yourself in a fall?

Most people do not have the strength to stop a fall greater than two feet.

It takes half a second to react to fall. In that time you will fall 4 feet.

When used properly, fall protection will **prevent serious injury or death.**

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Roofing Fall Hazards

It's not just the roof edge



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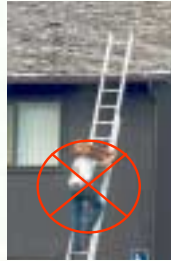
Roofing Fall Hazards

Ladders are fall hazards too

A large number of injuries in roofing are falls from ladders.

Ladders must be stabilized and extend at least 3 feet above the roof edge.

Both hands must be free when climbing a ladder.



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When Fall Protection is Needed

The 10 foot rule

During roofing, fall protection is always required when the roof edge is more than 10 feet above the ground or other surface.



Fall protection is required on this roof since the roof edges are 10 ft. above the ground at all points.

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When Fall Protection is Needed

Low pitched roofs and fall protection

A roof with a slope of 4:12 or less is a low-pitched roof.

Fall protection is required on low-pitched roofs where the fall distance is 10 feet or more such as at the gable end.



Fall protection is not normally required on low-pitched roof edge work below 10 feet.

Fall protection required at gable end, but not horizontal roof edge.

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When Fall Protection is Needed

Low-pitched roofs

A full-hipped low-pitched roof would not generally require fall protection if the roof edge is below 10 ft.



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When Fall Protection Is Needed

Roofs with more than one level

Fall protection on roofs with two or more levels is normally required when the level you are working on is 10 feet or more above the ground.



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When Fall Protection is Needed

Hazardous Slopes

Some roofs are considered "hazardous slopes" when they are steep, slippery or both.

A steep roof is one with a slope greater than 4 in 12.

When any roof is so steep or slippery that an uncontrolled fall would likely happen, fall protection is required at 6 feet.



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Roofing Fall Protection

Types of Fall Protection

Fall Restraint – equipment that prevents a free fall in the first place.

Fall Arrest – equipment that stops a free fall in progress (in the middle of the fall).



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Fall Protection We Use

Describe or show fall protection used by your company and/or at specific jobsites.

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Fall Restraint

Fall restraint – three types

Personal fall restraint – a body belt or harness connected to an anchor to prevent you from going over the edge of the roof,

OR

Guardrails,



OR

Warning line and safety monitor person.



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Fall Restraint

Personal Fall Restraint

Fall restraint can be a body belt or full body harness.



You must be tied off so that you can never go past the roof edge, no matter where you work on the roof.



Gear should be adjustable to take up slack when you move about.

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Fall restraint problem

A fall restraint lanyard too long to prevent a fall



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Fall Restraint

Roof Edge Guardrails

Are most practical on flat or low-pitched roofs.

Guardrail must be 39-45 inches high and have midrail and toeboard.

Must withstand 200 pounds of force in any direction.

Roof parapets must be over 39" high to act as guardrail.



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Fall Restraint

Roof Openings

Roof openings are also fall hazards and must either be covered or surrounded by a guardrail.



Skylights will usually break unless guarded or screened.



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Fall Restraint

Hole covers must be:

Designed to support a minimum load of 200 lbs,

Secured with cleats or hinges,

Marked "Hole" or "Cover",

Hole must be attended if the cover is removed.



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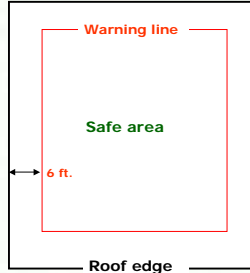
Fall Restraint

Warning Line and Safety Monitor System

The warning line is installed six feet from the roof edge at a height of 36-42 inches. Line is flagged every six feet.

Work outside the safe area requires a **safety monitor**.

Equipment cannot be used or stored outside safe area.



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Fall Restraint

Working outside the warning line

You must either wear fall protection or have a **safety monitor** when working outside the warning line.

You must wear high visibility garment outside the line and take it off inside the line.



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Fall Restraint

Safety Monitor Duties

Warns workers of fall danger.

Must be easily identified.

His only job is to watch and warn roofers.

Cannot have any other duties.

Can monitor up to eight workers.

Must be a clear view between him and workers.



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End of Module 1

Go to Module 2 to complete
roofing fall protection training
